# WEST Search History

DATE: Tuesday, August 19, 2003

| Set Name side by side | Query | Hit Count | Set Name result set |
|---|---|---|---|
| *DB=USPT,PGPB,JPAB,EPAB,DWPI,TDBD; PLUR=YES; OP=ADJ* | | | |
| L3 | L2 and sialyltransferase | 3 | L3 |
| L2 | L1 and saponin | 126 | L2 |
| *DB=USPT; PLUR=YES; OP=ADJ* | | | |
| L1 | ((514/33 \|514/34 \|514/35 \|514/53 \|514/54 )!.CCLS. \|(536/4.1 \|536/8 \|536/123 \|536/123.1 )!.CCLS. ) | 4214 | L1 |

END OF SEARCH HISTORY

(FILE 'HOME' ENTERED AT 09:18:21 ON 19 AUG 2003)

FILE 'CAPLUS, MEDLINE, USPATFULL' ENTERED AT 09:18:34 ON 19 AUG 2003

L1 30592 S SAPONIN
L2 23 S L1 AND SIALYLTRANSFERASE
L3 17 S L2 AND (CANCER OR TUMOR OR METASTASIS OR INVASION)

=>

L3 ANSWER 1 OF 17 CAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 2002:638278 CAPLUS
DOCUMENT NUMBER: 137:163842
TITLE: **Saponin** derivatives useful for inhibiting **sialyltransferase** and biosynthesis of sialoglycoconjugate
INVENTOR(S): Wu, Chi-yue; Chen, Shui-tein; Tsai, Ying-chieh
PATENT ASSIGNEE(S): Shui-Tein Chen, Taiwan
SOURCE: U.S. Pat. Appl. Publ., 11 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| US 2002115623 | A1 | 20020822 | US 2001-23604 | 20011217 |
| PRIORITY APPLN. INFO.: | | | US 2000-256853P P | 20001219 |

OTHER SOURCE(S): MARPAT 137:163842

L3 ANSWER 2 OF 17 MEDLINE on STN
ACCESSION NUMBER: 2001327666 MEDLINE
DOCUMENT NUMBER: 21288820 PubMed ID: 11394903
TITLE: Soyasaponin I, a potent and specific **sialyltransferase** inhibitor.
AUTHOR: Wu C Y; Hsu C C; Chen S T; Tsai Y C
CORPORATE SOURCE: Institute of Biochemistry, National Yang-Ming University, Taipei, Taiwan.
SOURCE: BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIONS, (2001 Jun 8) 284 (2) 466-9.
Journal code: 0372516. ISSN: 0006-291X.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200107
ENTRY DATE: Entered STN: 20010716
Last Updated on STN: 20010716
Entered Medline: 20010712

L3 ANSWER 3 OF 17 USPATFULL on STN
ACCESSION NUMBER: 2002:272847 USPATFULL
TITLE: Glycoconjugate and sugar nucleotide synthesis using solid supports
INVENTOR(S): Wang, Peng G., Troy, MI, UNITED STATES
Chen, Xi, Norristown, PA, UNITED STATES

| | NUMBER | KIND | DATE |
|---|---|---|---|
| PATENT INFORMATION: | US 2002150968 | A1 | 20021017 |
| APPLICATION INFO.: | US 2001-757846 | A1 | 20010110 (9) |

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: Brinks Hofer Gilson & Lione, P.O. Box 10395, Chicago, IL, 60610
NUMBER OF CLAIMS: 43
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 22 Drawing Page(s)
LINE COUNT: 2405
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L3 ANSWER 4 OF 17 USPATFULL on STN

ACCESSION NUMBER: 2002:272457 USPATFULL
TITLE: Methods and compositions for the treatment of psoriasis
INVENTOR(S): Foon, Kenneth A., Fremont, CA, UNITED STATES
Chatterjee, Malaya, Fort Wright, KY, UNITED STATES

| | NUMBER | KIND | DATE |
|---|---|---|---|
| PATENT INFORMATION: | US 2002150572 | A1 | 20021017 |
| APPLICATION INFO.: | US 2001-990205 | A1 | 20011120 (9) |

RELATED APPLN. INFO.: Continuation of Ser. No. US 1998-192838, filed on 16 Nov 1998, GRANTED, Pat. No. US 6355244

| | NUMBER | DATE |
|---|---|---|
| PRIORITY INFORMATION: | US 1997-65774P | 19971117 (60) |

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: MORRISON & FOERSTER LLP, 755 PAGE MILL RD, PALO ALTO, CA, 94304-1018
NUMBER OF CLAIMS: 20
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 3 Drawing Page(s)
LINE COUNT: 1564
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L3 ANSWER 5 OF 17 USPATFULL on STN
ACCESSION NUMBER: 2002:243134 USPATFULL
TITLE: Glycoconjugate synthesis using a pathway-engineered organism
INVENTOR(S): Wang, Peng George, Troy, MI, UNITED STATES
Chen, Xi, Norristown, PA, UNITED STATES
Liu, Ziye, Detroit, MI, UNITED STATES
Zhang, Wei, Detroit, MI, UNITED STATES

| | NUMBER | KIND | DATE |
|---|---|---|---|
| PATENT INFORMATION: | US 2002132320 | A1 | 20020919 |
| APPLICATION INFO.: | US 2001-758525 | A1 | 20010110 (9) |

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: BRINKS HOFER GILSON & LIONE, P.O. BOX 10395, CHICAGO, IL, 60610
NUMBER OF CLAIMS: 51
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 22 Drawing Page(s)
LINE COUNT: 2558
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L3 ANSWER 6 OF 17 USPATFULL on STN
ACCESSION NUMBER: 2002:214235 USPATFULL
TITLE: **Saponin** derivatives useful for inhibiting **sialyltransferase** and biosynthesis of sialoglycoconjugate
INVENTOR(S): Wu, Chi-Yue, Taipei, TAIWAN, PROVINCE OF CHINA
Chen, Shui-Tein, Taipei, TAIWAN, PROVINCE OF CHINA
Tsai, Ying-Chieh, Taipei, TAIWAN, PROVINCE OF CHINA
PATENT ASSIGNEE(S): Shui-Tein Chen (non-U.S. corporation)

| | NUMBER | KIND | DATE |
|---|---|---|---|
| PATENT INFORMATION: | US 2002115623 | A1 | 20020822 |
| APPLICATION INFO.: | US 2001-23604 | A1 | 20011217 (10) |

| | NUMBER | DATE |
|---|---|---|

| | | |
|---|---|---|
| | ---------- | -------- |
| PRIORITY INFORMATION: | US 2000-256853P | 20001219 (60) |
| DOCUMENT TYPE: | Utility | |
| FILE SEGMENT: | APPLICATION | |
| LEGAL REPRESENTATIVE: | Paul D. Greeley, Esq., Ohlandt, Greeley, Ruggiero & Perle, L.L.P., 10th Floor, One Landmark Square, Stamford, CT, 06901-2682 | |
| NUMBER OF CLAIMS: | 13 | |
| EXEMPLARY CLAIM: | 1 | |
| NUMBER OF DRAWINGS: | 3 Drawing Page(s) | |
| LINE COUNT: | 489 | |

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L3 ANSWER 7 OF 17 USPATFULL on STN

| | | | |
|---|---|---|---|
| ACCESSION NUMBER: | 2002:85167 USPATFULL | | |
| TITLE: | GLYCOPROTEIN PRODUCTION PROCESS | | |
| INVENTOR(S): | KRUMMEN, LYNNE A., SAN FRANCISCO, CA, UNITED STATES<br>SLIWKOWSKI, MARY B., SAN CARLOS, CA, UNITED STATES<br>WARNER, TOM, SAN CARLOS, CA, UNITED STATES | | |
| | NUMBER | KIND | DATE |
| | --------- | ---- | -------- |
| PATENT INFORMATION: | US 2002045207 | A1 | 20020418 |
| APPLICATION INFO.: | US 1998-175202 | A1 | 19981019 (9) |
| | NUMBER | | DATE |
| | ---------- | | -------- |
| PRIORITY INFORMATION: | US 1997-63872P | | 19971031 (60) |
| DOCUMENT TYPE: | Utility | | |
| FILE SEGMENT: | APPLICATION | | |
| LEGAL REPRESENTATIVE: | KATHERINE M. KOWALCHYK, MERCHANT AND GOULD, P.O.BOX 2903, MINNEAPOLIS, MN, 55402-0903 | | |
| NUMBER OF CLAIMS: | 14 | | |
| EXEMPLARY CLAIM: | 1 | | |
| NUMBER OF DRAWINGS: | 11 Drawing Page(s) | | |
| LINE COUNT: | 1396 | | |

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L3 ANSWER 8 OF 17 USPATFULL on STN

| | | | |
|---|---|---|---|
| ACCESSION NUMBER: | 2002:78425 USPATFULL | | |
| TITLE: | METHODS AND AGENTS FOR MEASURING AND CONTROLLING MULTIDRUG RESISTANCE | | |
| INVENTOR(S): | SIMON, SANFORD M., NEW YORK, NY, UNITED STATES<br>SCHINDLER, MELVIN S., OKEMOS, MI, UNITED STATES | | |
| | NUMBER | KIND | DATE |
| | --------- | ---- | -------- |
| PATENT INFORMATION: | US 2002042079 | A1 | 20020411 |
| APPLICATION INFO.: | US 1998-80739 | A1 | 19980518 (9) |
| RELATED APPLN. INFO.: | Continuation-in-part of Ser. No. US 1995-535955, filed on 28 Sep 1995, GRANTED, Pat. No. US 5616228<br>Continuation-in-part of Ser. No. US 1995-379875, filed on 27 Jan 1995, ABANDONED Continuation of Ser. No. US 1994-190336, filed on 1 Feb 1994, ABANDONED | | |
| DOCUMENT TYPE: | Utility | | |
| FILE SEGMENT: | APPLICATION | | |
| LEGAL REPRESENTATIVE: | DAVID A JACKSON, KLAUBER & JACKSON, 411 HACKENSACK AVENUE, HACKENSACK, NJ, 07601 | | |
| NUMBER OF CLAIMS: | 61 | | |
| EXEMPLARY CLAIM: | 1 | | |
| NUMBER OF DRAWINGS: | 30 Drawing Page(s) | | |
| LINE COUNT: | 4874 | | |

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L3 ANSWER 9 OF 17 USPATFULL on STN
ACCESSION NUMBER: 2002:50611 USPATFULL
TITLE: Methods and compositions for the treatment of psoriasis
INVENTOR(S): Foon, Kenneth A., Lexington, KY, United States
Chatterjee, Malaya, Lexington, KY, United States
PATENT ASSIGNEE(S): University of Kentucky Research Foundation, Lexington, KY, United States (U.S. corporation)

| | NUMBER | KIND | DATE |
|---|---|---|---|
| PATENT INFORMATION: | US 6355244 | B1 | 20020312 |
| APPLICATION INFO.: | US 1998-192838 | | 19981116 (9) |

| | NUMBER | DATE |
|---|---|---|
| PRIORITY INFORMATION: | US 1997-65774P | 19971117 (60) |

DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Nolan, Patrick J.
LEGAL REPRESENTATIVE: Morrison & Foerster LLP
NUMBER OF CLAIMS: 4
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 3 Drawing Figure(s); 3 Drawing Page(s)
LINE COUNT: 1630
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L3 ANSWER 10 OF 17 USPATFULL on STN
ACCESSION NUMBER: 1999:43808 USPATFULL
TITLE: Transgenic non-human mammals producing oligosaccharides and glycoconjugates
INVENTOR(S): Prieto, Pedro Antonio, Columbus, OH, United States
Smith, David Fletcher, Athens, GA, United States
Cummings, Richard Dale, Edmond, OK, United States
Kopchick, John Joseph, Athens, OH, United States
Mukerji, Pradip, Gahanna, OH, United States
Moremen, Kelley Wilson, Athens, GA, United States
Pierce, James Michael, Athens, GA, United States
PATENT ASSIGNEE(S): Abbott Laboratories, Abbott Park, IL, United States (U.S. corporation)

| | NUMBER | KIND | DATE |
|---|---|---|---|
| PATENT INFORMATION: | US 5892070 | | 19990406 |
| APPLICATION INFO.: | US 1996-715259 | | 19960910 (8) |

RELATED APPLN. INFO.: Continuation of Ser. No. US 1994-209132, filed on 9 Mar 1994, now abandoned
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Crouch, Deborah
LEGAL REPRESENTATIVE: Becker, Cheryl L.
NUMBER OF CLAIMS: 2
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 19 Drawing Figure(s); 15 Drawing Page(s)
LINE COUNT: 1747
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L3 ANSWER 11 OF 17 USPATFULL on STN
ACCESSION NUMBER: 1999:43446 USPATFULL
TITLE: Oligosaccharides and glycoproteins produced in milk of transgenic non-human mammals
INVENTOR(S): Prieto, Pedro Antonio, Columbus, OH, United States
Smith, David Fletcher, Athens, GA, United States
Cummings, Richard Dale, Edmond, OK, United States
Kopchick, John Joseph, Athens, OH, United States

Mukerji, Pradip, Gahanna, OH, United States
Moremen, Kelley Wilson, Athens, GA, United States
Pierce, James Michael, Athens, GA, United States
PATENT ASSIGNEE(S): Abbott Laboratories, Abbott Park, IL, United States (U.S. corporation)

| | NUMBER | KIND | DATE |
|---|---|---|---|
| PATENT INFORMATION: | US 5891698 | | 19990406 |
| APPLICATION INFO.: | US 1995-433271 | | 19950502 (8) |

RELATED APPLN. INFO.: Division of Ser. No. US 1994-209122, filed on 9 Mar 1994
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Crouch, Deborah
LEGAL REPRESENTATIVE: Becker, Cheryl L.
NUMBER OF CLAIMS: 14
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 17 Drawing Figure(s); 12 Drawing Page(s)
LINE COUNT: 1853
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L3 ANSWER 12 OF 17 USPATFULL on STN
ACCESSION NUMBER: 1998:162483 USPATFULL
TITLE: Sialyl Le.sup.x analogues as inhibitors of cellular adhesion
INVENTOR(S): DeFrees, Shawn A., San Marcos, CA, United States
PATENT ASSIGNEE(S): Cytel Corporation, San Diego, CA, United States (U.S. corporation)

| | NUMBER | KIND | DATE |
|---|---|---|---|
| PATENT INFORMATION: | US 5854218 | | 19981229 |
| APPLICATION INFO.: | US 1996-730553 | | 19961015 (8) |

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1995-485453, filed on 7 Jun 1995 which is a continuation-in-part of Ser. No. US 1994-345072, filed on 28 Nov 1994, now patented, Pat. No. US 5604207 which is a continuation-in-part of Ser. No. US 1994-241645, filed on 12 May 1994, now abandoned which is a continuation-in-part of Ser. No. US 1993-62120, filed on 14 May 1993, now abandoned

| | NUMBER | DATE |
|---|---|---|
| PRIORITY INFORMATION: | US 1995-5545P | 19951018 (60) |

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Fonda, Kathleen K.
LEGAL REPRESENTATIVE: Townsend and Townsend and Crew LLP
NUMBER OF CLAIMS: 5
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 23 Drawing Figure(s); 23 Drawing Page(s)
LINE COUNT: 4217
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L3 ANSWER 13 OF 17 USPATFULL on STN
ACCESSION NUMBER: 1998:115719 USPATFULL
TITLE: Sialyl Le.sup.x analogues as inhibitors of cellular adhesion
INVENTOR(S): De Frees, Shawn, San Marcos, CA, United States
Gaeta, Federico C. A., Foster City, CA, United States
Gaudino, John J., Westlake Village, CA, United States
Zheng, Zhongli, Lexington, MA, United States
Hayashi, Masaji, Kobe, Japan

PATENT ASSIGNEE(S): Cytel Corporation, San Diego, CA, United States (U.S. corporation)

| | NUMBER | KIND | DATE |
|---|---|---|---|
| PATENT INFORMATION: | US 5811404 | | 19980922 |
| APPLICATION INFO.: | US 4854535 | | 19950607 (8) |

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. 345072, filed on 28 Nov 1994, now patented, Pat. No. 5604207 which is a continuation-in-part of Ser. No. 241645, filed on 12 May 1994 which is a continuation-in-part of Ser. No. 62120, filed on 14 May 1993, now abandoned

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Fonda, Kathleen K.
LEGAL REPRESENTATIVE: Townsend and Townsend and Crew
NUMBER OF CLAIMS: 5
EXEMPLARY CLAIM: 4
LINE COUNT: 2846
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L3 ANSWER 14 OF 17 USPATFULL on STN
ACCESSION NUMBER: 1998:54875 USPATFULL
TITLE: Intercellular adhesion mediators
INVENTOR(S): Paulson, James C., Sherman Oaks, CA, United States
Perez, Mary S., Carlsbad, CA, United States
Gaeta, Federico C. A., La Jolla, CA, United States
Ratcliffe, Robert M., Carlsbad, CA, United States
PATENT ASSIGNEE(S): Cytel Corporation, San Diego, CA, United States (U.S. corporation)

| | NUMBER | KIND | DATE |
|---|---|---|---|
| PATENT INFORMATION: | US 5753631 | | 19980519 |
| APPLICATION INFO.: | US 1995-457886 | | 19950531 (8) |

RELATED APPLN. INFO.: Division of Ser. No. US 1993-63181, filed on 14 May 1993 which is a continuation-in-part of Ser. No. US 1991-810789, filed on 17 Dec 1991, now abandoned which is a continuation-in-part of Ser. No. US 1991-716735, filed on 17 Jun 1991, now abandoned which is a continuation-in-part of Ser. No. US 1990-632390, filed on 21 Dec 1990, now abandoned which is a continuation-in-part of Ser. No. US 1990-619319, filed on 28 Nov 1990, now abandoned which is a continuation-in-part of Ser. No. US 1990-538853, filed on 15 Jun 1990, now abandoned

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Fonda, Kathleen K.
LEGAL REPRESENTATIVE: Townsend and Townsend and Crew LLP
NUMBER OF CLAIMS: 9
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 41 Drawing Figure(s); 24 Drawing Page(s)
LINE COUNT: 4107
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L3 ANSWER 15 OF 17 USPATFULL on STN
ACCESSION NUMBER: 1998:51259 USPATFULL
TITLE: Transgenic non-human mammal milk comprising 2'-fucosyl-lactose
INVENTOR(S): Prieto, Pedro Antonio, Columbus, OH, United States
Smith, David Fletcher, Athens, GA, United States
Cummings, Richard Dale, Edmond, OK, United States
Kopchick, John Joseph, Athens, OH, United States

Mukerji, Pradip, Gahanna, OH, United States
Moremen, Kelley Wilson, Athens, GA, United States
Pierce, James Michael, Athens, GA, United States
PATENT ASSIGNEE(S): Abbott Laboratories, Abbott Park, IL, United States (U.S. corporation)

| | NUMBER | KIND | DATE |
|---|---|---|---|
| PATENT INFORMATION: | US 5750176 | | 19980512 |
| APPLICATION INFO.: | US 1994-208889 | | 19940309 (8) |

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Crouch, Deborah
LEGAL REPRESENTATIVE: Becker, Cheryl L.
NUMBER OF CLAIMS: 5
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 17 Drawing Figure(s); 12 Drawing Page(s)
LINE COUNT: 1778
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L3 ANSWER 16 OF 17 USPATFULL on STN
ACCESSION NUMBER: 97:120488 USPATFULL
TITLE: Methods of making transgenic animals producing oligosaccharides and glycoproteins
INVENTOR(S): Prieto, Pedro Antonio, Columbus, OH, United States
Smith, David Fletcher, Athens, GA, United States
Cummings, Richard Dale, Edmond, OK, United States
Kopchick, John Joseph, Athens, OH, United States
Mukerji, Pradip, Gahanna, OH, United States
Moremen, Kelley Wilson, Athens, GA, United States
Pierce, James Michael, Athens, GA, United States
PATENT ASSIGNEE(S): Abbott Laboratories, Abbott Park, IL, United States (U.S. corporation)

| | NUMBER | KIND | DATE |
|---|---|---|---|
| PATENT INFORMATION: | US 5700671 | | 19971223 |
| APPLICATION INFO.: | US 1995-434151 | | 19950502 (8) |

RELATED APPLN. INFO.: Division of Ser. No. US 1994-209132, filed on 9 Mar 1994
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Chambers, Jasemine C.
ASSISTANT EXAMINER: Crouch, Deborah
LEGAL REPRESENTATIVE: Becker, Cheryl L.
NUMBER OF CLAIMS: 8
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 19 Drawing Figure(s); 15 Drawing Page(s)
LINE COUNT: 1805
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L3 ANSWER 17 OF 17 USPATFULL on STN
ACCESSION NUMBER: 96:106478 USPATFULL
TITLE: Intercellular adhesion mediators
INVENTOR(S): Ratcliffe, Robert M., Carlsbad, CA, United States
PATENT ASSIGNEE(S): Cytel Corporation, San Diego, CA, United States (U.S. corporation)

| | NUMBER | KIND | DATE |
|---|---|---|---|
| PATENT INFORMATION: | US 5576305 | | 19961119 |
| APPLICATION INFO.: | US 1995-466040 | | 19950606 (8) |

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1993-63181, filed on 14 May 1993 which is a continuation-in-part of Ser.

| | |
|---|---|
| | No. US 1991-810789, filed on 17 Dec 1991, now abandoned which is a continuation-in-part of Ser. No. US 1991-716735, filed on 17 Jun 1991, now abandoned which is a continuation-in-part of Ser. No. US 1990-632390, filed on 21 Dec 1990, now abandoned which is a continuation-in-part of Ser. No. US 1990-619319, filed on 28 Nov 1990, now abandoned which is a continuation-in-part of Ser. No. US 1990-538853, filed on 15 Jun 1990, now abandoned |
| DOCUMENT TYPE: | Utility |
| FILE SEGMENT: | Granted |
| PRIMARY EXAMINER: | Kunz, Gary L. |
| ASSISTANT EXAMINER: | Fonda, Kathleen Kahler |
| LEGAL REPRESENTATIVE: | Townsend and Townsend and Crew LLP |
| NUMBER OF CLAIMS: | 8 |
| EXEMPLARY CLAIM: | 1 |
| NUMBER OF DRAWINGS: | 26 Drawing Figure(s); 21 Drawing Page(s) |
| LINE COUNT: | 2095 |

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

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  (FILE 'HOME' ENTERED AT 10:21:50 ON 05 FEB 2003)

     FILE 'REGISTRY' ENTERED AT 10:22:03 ON 05 FEB 2003
                E "SIALYLTRANSFERASE"/CN 25
L1            1 S E3

     FILE 'CAPLUS, USPATFULL, MEDLINE' ENTERED AT 10:23:13 ON 05 FEB 2003
L2           63 S L1
L3            2 S L2 AND SAPONIN
L4           24 S L2 AND (CANCER OR METASTASIS OR TUMOR)
L5            0 S L4 AND (GLUCOSIDE OR ISOFLAVONE OR SOYA)

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L4 ANSWER 1 OF 24 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2002:937303 CAPLUS
DOCUMENT NUMBER: 138:20443
TITLE: Endocrine disruptor screening using DNA chips of endocrine disruptor-responsive genes
INVENTOR(S): Kondo, Akihiro; Takeda, Takeshi; Mizutani, Shigetoshi; Tsujimoto, Yoshimasa; Takashima, Ryokichi; Enoki, Yuki; Kato, Ikunoshin
PATENT ASSIGNEE(S): Takara Bio Inc., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 386 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| JP 2002355079 | A2 | 20021210 | JP 2002-69354 | 20020313 |

PRIORITY APPLN. INFO.: JP 2001-73183 A 20010314
JP 2001-74993 A 20010315
JP 2001-102519 A 20010330

AB A method and kit for detecting endocrine-disrupting chems. using DNA microarrays are claimed. The method comprises prepg. a nucleic acid sample contg. mRNAs or cDNAs originating in cells, tissues, or organisms which have been brought into contact with a sample contg. the endocrine disruptor. The nucleic acid sample is hybridized with DNA microarrays having genes affected by the endocrine disruptor or DNA fragments originating in these genes have been fixed. The results obtained are then compared with the results obtained with the control sample to select the gene affected by the endocrine disruptor. Genes whose expression is altered by tri-Bu tin, 4-octaphenol, 4-nonylphenol, di-N-Bu phthalate, dichlorohexyl phthalate, octachlorostyrene, benzophenone, diethylhexyl phthalate, diethylstilbestrol (DES), and 17-.beta. estradiol (E2), were found in mice by DNA chip anal.

L4 ANSWER 2 OF 24 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2002:905755 CAPLUS
DOCUMENT NUMBER: 138:3678
TITLE: Method of increasing anti-NeuGc antibody levels in blood
INVENTOR(S): Zhu, Alex; Zhang, Shiming
PATENT ASSIGNEE(S): Immucom Inc., USA
SOURCE: PCT Int. Appl., 45 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| WO 2002094199 | A2 | 20021128 | WO 2002-US16376 | 20020523 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |
| US 2002192231 | A1 | 20021219 | US 2002-154046 | 20020523 |

PRIORITY APPLN. INFO.: US 2001-293244P P 20010524

US 2001-297692P P 20010612

AB The present invention provides for a method of increasing anti-NeuGc (N-glycolylneuraminic acid) antibody levels in the blood of an animal (including humans) for the purpose of fighting **cancer** or any other disease in which the specific antigen is present, by either i.v. injection of autogenic or allogeneic cells, wherein the cells contain NeuGc on their plasma membrane, or oral administration of NeuGc-contg. substances from animal tissues. The invention also provides a procedure for efficiently measuring levels of anti-NeuGc in human blood. This method may further be applied to the immunoprevention in chickens at risk of developing Marek's disease. Further, the invention provides a procedure for producing eggs contg. high titers of anti-NeuGc antibodies obtained by oral immunization of chickens. The procedure is also provided for prepg. antibody exts. form egg yolk and for purifying anti-NeuGc antibodies by affinity chromatog. The final object of the invention is to provide chicken supplemented food contg. materials that trigger anti-NeuGc antibodies. This material can be pig brain or any other organs or cells expressing NeuGc, in the original or processed form.

L4 ANSWER 3 OF 24 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2002:772403 CAPLUS
TITLE: Protein and cDNA sequences of human sialyltransferase (hST30-1)-like protein 11.99 and therapeutical uses
INVENTOR(S): Mao, Yumin; Xie, Yi
PATENT ASSIGNEE(S): Bode Gene Development Co., Ltd., Shanghai, Peop. Rep. China
SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 35 pp. CODEN: CNXXEV
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| CN 1331309 | A | 20020116 | CN 2000-116809 | 20000628 |
| WO 2002033075 | A1 | 20020425 | WO 2001-CN1058 | 20010625 |

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: CN 2000-116809 A 20000628

AB The invention provides the protein and cDNA sequences of a novel human sialyltransferase (hST30-1)-like protein 11.99 with the mol. wt. of 12 kilodaltons cloned from human fetal brain. In particular, the invention discloses that the gene encoding this protein has a similar expression pattern with gene encoding human sialyltransferase (hST30-1). The invention also relates to construction of sialyltransferase (hST30-1)-like protein 11.99 expression vector for prepn. of recombinant protein using prokaryotes or eukaryotes. The invention relates to prepn. of antibody against this protein. The invention further relates to the PCR primers, nucleic acid probes, DNA fragments and protein agonists or antagonists specific for this gene or gene product for the diagnosis as well as treatment of various diseases, such as **tumors**, immune disorders or inflammations.

L4 ANSWER 4 OF 24 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2002:638278 CAPLUS
DOCUMENT NUMBER: 137:163842

TITLE: Saponin derivatives useful for inhibiting sialyltransferase and biosynthesis of sialoglycoconjugate
INVENTOR(S): Wu, Chi-yue; Chen, Shui-tein; Tsai, Ying-chieh
PATENT ASSIGNEE(S): Shui-Tein Chen, Taiwan
SOURCE: U.S. Pat. Appl. Publ., 11 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| US 2002115623 | A1 | 20020822 | US 2001-23604 | 20011217 |

PRIORITY APPLN. INFO.: US 2000-256853P P 20001219
OTHER SOURCE(S): MARPAT 137:163842
AB A sialyltransferase inhibitor comprises a saponin deriv. selected from soyasaponin I, soyasaponin II, soyasaponin III, kaikasaponin III, soyasaponin V, and soyasaponin I-Me. The saponin deriv. can be used in the treatment of the disease assocd. with sialyltransferase, such as inflammation, allergy, infection by pathogens, oncogenesis, **cancer**, **metastasis** and invasion. For example, soyasaponin I inhibited the expression of cell surface 2,3-sialoglyconjugates of human breast **cancer** MCF7 cells; 100 .mu.M of soyasaponin I can decrease about 80% of the 2,3-sialoglyconjugates of MCF7 cells. Moreover, soyasaponin I inhibited the growth of human breast **cancer** MCF7 cells. In addn., soyasaponin I inhibited the expression of cell surface .alpha.2,6-sialoglyconjugates of human hepatoma HepG2 cells; 100 .mu.M of soyasaponin I decreased about 60% cell surface .alpha.2,6-sialoglyconjugates of HepG2 cells. Also, the soyasaponin I inhibited the growth of human hepatoma HepG2 cells.

L4 ANSWER 5 OF 24 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2002:575269 CAPLUS
DOCUMENT NUMBER: 137:135067
TITLE: Use of sialyl transferases for diagnosing and treating tumorous diseases
INVENTOR(S): Schneider, Frank; Kemmner, Wolfgang
PATENT ASSIGNEE(S): Max-Delbruck-Centrum Fur Molekulare Medizin, Germany
SOURCE: PCT Int. Appl., 9 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| WO 2002059350 | A2 | 20020801 | WO 2002-DE263 | 20020125 |
| W: US | | | | |
| RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR | | | | |
| DE 10103695 | A1 | 20020801 | DE 2001-10103695 | 20010126 |

PRIORITY APPLN. INFO.: DE 2001-10103695 A 20010126
AB The invention discloses the use of sialyl transferases, in particular of sialyl transferase ST6GalNAc-II, for diagnosing and treating tumorous diseases. The mRNA expression of sialyl transferase ST6GalNAc-II increases in cases where lymph node **metastases** occur. Research into 40 well-documented cases of colorectal carcinomas show that the expression of ST6GalNAc-II constitutes a prognostic factor for the survival of such patients. In addn., by blocking the expression of sialyl transferase ST6GalNAc-II, the synthesis of the **tumor**-linked antigen TF can be blocked, potentially improving the prognosis. The

invention also relates to the inhibition of the expression of the enzyme by pharmaceutical agents.

L4 ANSWER 6 OF 24 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2002:419481 CAPLUS
DOCUMENT NUMBER: 138:36816
TITLE: Identification of genes associated with **metastasis** of mammary carcinoma in metastatic versus non-metastatic cell lines
AUTHOR(S): Euer, Nicole; Schwirzke, Marina; Evtimova, Vesna; Burtscher, Helmut; Jarsch, Michael; Tarin, David; Weidle, Ulrich H.
CORPORATE SOURCE: Division Pharma, Roche Diagnostics GmbH, Penzberg, D-82372, Germany
SOURCE: Anticancer Research (2002), 22(2A), 733-740
CODEN: ANTRD4; ISSN: 0250-7005
PUBLISHER: International Institute of Anticancer Research
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Cell lines 4A4 and 2C5 are the resp. metastatic and non-metastatic variants (nude mouse system) derived from the human mammary carcinoma cell line MDA-MB-435. In order to identify genes assocd. with or functionally involved in **metastasis**, the authors have extended their previous transcriptional profile from 5000 to 12,000 genes using the Affymetrix Gene Chip array technol. Based on a threshold level of a change factor of .gtoreq. 2.5, the authors found that the steady-state level of 40 genes (0.3 %) was up-regulated and conversely 89 genes (0.7 %) were down-regulated in the metastatic cell line 4A4. The de-regulated genes were classified into categories such as **tumor** antigens / transmembrane receptors, enzymes, mediators of signaling, cell migration and angiogenesis, cell-cycle-, apoptosis-, differentiation- and growth-factor related genes, **tumor** suppressors, transcription factors and genes encoding components of the extracellular matrix and the cytoskeleton. As possible mediators of invasion the authors identified DGCR6, osteopontin, autotaxin and the 65 kDa phosphoprotein p65. In addn., three sugar-modifying enzymes were up-regulated in cell line 4A4. Profound differences in G-protein-mediated signaling and down-regulation of the **tumor**-suppressor genes DPC4, BARD1 and DLC-1 were noted in the metastatic cell line 4A4.
REFERENCE COUNT: 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 7 OF 24 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2002:262593 CAPLUS
DOCUMENT NUMBER: 137:183074
TITLE: Sialyltransferases and breast **cancer**
AUTHOR(S): Harduin-Lepers, Anne; Krzewinski-Recchi, Marie-Ange; Hebbar, Mohamed; Samyn-Petit, Benedicte; Vallejo-Ruiz, Veronica; Julien, Sylvain; Peyrat, Jean Philippe; Delannoy, Philippe
CORPORATE SOURCE: Unite de Glycobiologie Structurale et Fonctionnelle, UMR CNRS n.degree.8576, Laboratoire de Chimie Biologique, Universite des Sciences et Technologies de Lille, Villeneuve d'Ascq, F-59655, Fr.
SOURCE: Recent Research Developments in Cancer (2001), 3(Pt. 1), 111-126
CODEN: RRDCCP
PUBLISHER: Transworld Research Network
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
AB A review. Sialylated oligosaccharides of glycoproteins and glycolipids have been implicated in many biol. processes such as cell-cell interaction and cell migration, in connection with physiol. and pathol. processes such as lymphocyte trafficking and **cancer metastasis**. The

human genome encodes probably more than 20 different sialyltransferases but to date only 15 different human sialyltransferase cDNAs have been cloned and characterized. Each of the sialyltransferase genes is differentially expressed in tissue and cell type in a stage specific manner to regulate the sialylation pattern on the cell surface. These enzymes differ in their substrate specificity, tissue distribution and various biochem. parameters. However, the enzymic anal. conducted in vitro revealed that one linkage can be synthesized by multiple enzymes. An overview concerning these human genes and enzymes, the regulation of their occurrence and their involvement in breast **cancer** is given here. In particular, we report here for the first time the chromosomal assignment and gene organization of all human sialyltransferases. We also discussed the prognostic value of sialyltransferase expression in breast **cancer tumors**.

REFERENCE COUNT: 126 THERE ARE 126 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 8 OF 24 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2002:185378 CAPLUS
DOCUMENT NUMBER: 136:212896
TITLE: Gene markers useful for detecting skin damage in response to ultraviolet radiation
INVENTOR(S): Blumenberg, Miroslav
PATENT ASSIGNEE(S): New York University School of Medicine, USA
SOURCE: PCT Int. Appl., 274 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| WO 2002020849 | A2 | 20020314 | WO 2001-US28214 | 20010907 |
| W: AU, CA, JP, SG | | | | |
| RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR | | | | |
| AU 2001090699 | A5 | 20020322 | AU 2001-90699 | 20010907 |

PRIORITY APPLN. INFO.: US 2000-231061P P 20000908
WO 2001-US28214 W 20010907

AB The cellular response to UV radiation exposure has been characterized on the mol. level through the use of high d. gene array technol. Nucleic acid mols. and protein mols., the expression of which are repressed or induced in response to UV radiation exposure, are identified according to a temporal pattern of altered expression post UV radiation exposure. Methods are disclosed that utilized these UV radiation-regulated mols. as markers for UV radiation exposure. Other screening methods of the invention are designed for the identification of compds. that modulate the response of a cell to UV radiation exposure. The invention also provides compns. useful for drug screening or pharmaceuticals purposes.

L4 ANSWER 9 OF 24 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2002:185375 CAPLUS
DOCUMENT NUMBER: 136:212895
TITLE: Screening methods to identify compounds that modulate a gene expression response of a cell to ultraviolet radiation exposure
INVENTOR(S): Blumenberg, Miroslav
PATENT ASSIGNEE(S): New York University, USA
SOURCE: PCT Int. Appl., 459 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| WO 2002020846 | A2 | 20020314 | WO 2001-US28040 | 20010907 |
| W: AU, CA, JP, SG | | | | |
| RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR | | | | |
| US 2002090624 | A1 | 20020711 | US 2001-947870 | 20010906 |
| AU 2001090658 | A5 | 20020322 | AU 2001-90658 | 20010907 |

PRIORITY APPLN. INFO.: US 2000-231454P P 20000908
WO 2001-US28040 W 20010907

AB The cellular response to UV radiation exposure has been characterized on the mol. level through the use of high d. gene array technol. Nucleic acid mols. and protein mols., the expression of which are repressed or induced in response to UV radiation exposure, are identified according to a temporal pattern of altered expression post UV radiation exposure. Gene and protein sequences regulated by exposure to UV-B or UV-A radiation in cultures of epidermal keratinocytes from human foreskin are provided. Methods are disclosed that utilized these UV radiation-regulated mols. as markers for UV radiation exposure. Other screening methods of the invention are designed for the identofication of compds. that modulate the response of a cell to UV radiation exposure. The invention also provides compns. useful for drug screening or pharmaceutical purposes.

L4 ANSWER 10 OF 24 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2002:51510 CAPLUS
DOCUMENT NUMBER: 136:113826
TITLE: Protein and cDNA sequences of a novel human 9.57 kDa .alpha. 2,3-sialyltransferase-like protein and therapeutic uses
INVENTOR(S): Mao, Yumin; Xie, Yi
PATENT ASSIGNEE(S): Biowindow Gene Development Inc. Shanghai, Peop. Rep. China
SOURCE: PCT Int. Appl., 39 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| WO 2002004498 | A1 | 20020117 | WO 2001-CN1017 | 20010619 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG | | | | |
| CN 1330147 | A | 20020109 | CN 2000-116632 | 20000621 |

PRIORITY APPLN. INFO.: CN 2000-116632 A 20000621

AB The invention provides protein and cDNA sequences for 9.57 kDa novel human protein cloned from fetal brain, and which have similar expression pattern with human .alpha. 2,3-sialyltransferase (ST3Gal VI). The invention also relates to constructing .alpha. 2,3-sialyltransferase-like protein gene expression vectors to prep. recombinant .alpha. 2,3-sialyltransferase-like protein using prokaryote or eukaryote cells. Methods of expressing and prepg. recombinant .alpha. 2,3-sialyltransferase-like protein and its antibody are described. Methods of using .alpha. 2,3-sialyltransferase-

like protein or genes for the treatment of various kinds of diseases, such as **cancer**, blood diseases, HIV infection, immune diseases and inflammation are also disclosed.

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 11 OF 24 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 2002:37527 CAPLUS

DOCUMENT NUMBER: 136:215185

TITLE: **Tumor** necrosis factor .alpha. increases the expression of glycosyltransferases and sulfotransferases responsible for the biosynthesis of sialylated and/or sulfated Lewis x epitopes in the human bronchial mucosa.

AUTHOR(S): Delmotte, Philippe; Degroote, Sophie; Lafitte, Jean-Jacques; Lamblin, Genevieve; Perini, Jean-Marc; Roussel, Philippe

CORPORATE SOURCE: INSERM U 377 and Universite de Lille 2, Lille, 59045, Fr.

SOURCE: Journal of Biological Chemistry (2002), 277(1), 424-431
CODEN: JBCHA3; ISSN: 0021-9258

PUBLISHER: American Society for Biochemistry and Molecular Biology

DOCUMENT TYPE: Journal

LANGUAGE: English

AB There is increasing evidence that inflammation may affect glycosylation and sulfation of various glycoproteins. The present study reports the effect of **tumor** necrosis factor .alpha. (TNF-.alpha.), a proinflammatory cytokine, on the glycosyl- and sulfotransferases of the human bronchial mucosa responsible for the biosynthesis of Lewis-x epitope and of its sialylated and/or sulfated derivs., which are expressed in human bronchial mucins. Fragments of macroscopically normal human bronchial mucosa were exposed to TNF-.alpha. at a concn. of 20 ng/mL. TNF-.alpha. was shown to increase .alpha. 1,3-fucosyltransferase activity as well as expression of the two .alpha. 1,3-fucosyltransferase genes expressed in the human airway, FUT3 and FUT4. It had no influence on .alpha. 1,2-fucosyltransferase activity or FUT2 expression. It also increased .alpha. 2,3-sialyltransferase activity and the expression of ST3Gal-III and, more importantly, ST3Gal-IV and both N-acetylglucosamine 6-O-sulfotransferase and galactose 3-O-sulfotransferase. These results are consistent with the observation of oversialylation and increased expression sialyl-Lewis x epitopes on human airway mucins secreted by patients with severe lung infection such as those with cystic fibrosis, whose airways are colonized by Pseudomonas aeruginosa. However, other cytokines may also be involved in this process.

REFERENCE COUNT: 76 THERE ARE 76 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 12 OF 24 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 2001:713565 CAPLUS

DOCUMENT NUMBER: 135:268122

TITLE: BRCA-1 regulators and their identification using ribozymes and their use in screening for modulating compounds and treating **cancer**

INVENTOR(S): Beger, Carmela; Barber, Jack; Wong-Staal, Flossie

PATENT ASSIGNEE(S): Immusol Incorporated, USA

SOURCE: PCT Int. Appl., 97 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| WO 2001070982 | A2 | 20010927 | WO 2001-US9559 | 20010323 |
| WO 2001070982 | A3 | 20020822 | | |

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

| | | | | |
|---|---|---|---|---|
| EP 1268791 | A2 | 20030102 | EP 2001-924317 | 20010323 |

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR

PRIORITY APPLN. INFO.: US 2000-536058 A2 20000323
WO 2001-US9559 W 20010323

AB The invention provides ribozymes and encoding nucleic acids having target recognition sequences that allow the ribozyme to target and cleave BRCA-1 regulators, resulting in up-regulation of BRCA-1 in a cell. Also provided are nucleic acids encoding BRCA-1 regulators that contain the target sequences recognized by the ribozymes of the invention. Fragments of these nucleic acid and protein sequences also are provided. Further provided is a method for identifying a gene where the expression level is affected by a BRCA-1 regulator and the identity of several such affected genes. Still further provided is a method of identifying a compd. that modulates the activity of a BRCA-1 regulator. Also provided is a method of treating **cancer**, comprising introducing a ribozyme selectively reactive with an RNA encoding a BRCA-1 regulator into a cancerous cell. The invention further comprises a method of detecting a neoplastic cell in a sample.

L4 ANSWER 13 OF 24 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2001:411265 CAPLUS
DOCUMENT NUMBER: 135:220886
TITLE: Soyasaponin I, a Potent and Specific Sialyltransferase Inhibitor
AUTHOR(S): Wu, Chi-Yue; Hsu, Chi-Cheng; Chen, Shui-Tein; Tsai, Ying-Chieh
CORPORATE SOURCE: Institute of Biochemistry, School of Life Sciences, National Yang-Ming University, Taipei, Taiwan
SOURCE: Biochemical and Biophysical Research Communications (2001), 284(2), 466-469
CODEN: BBRCA9; ISSN: 0006-291X
PUBLISHER: Academic Press
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A growing no. of reports demonstrate that hypersialylation, which is obsd. in certain pathol. processes, such as oncogenic transformation, **tumor metastasis**, and invasion, is assocd. with enhanced sialyltransferase (ST) activity. There is therefore a need for the development of ST inhibitors to modulate ST activity and thus alleviate the disease processes caused by STs. In the present study, soyasaponin I had been discovered to be a potent and specific ST inhibitor by screening strategy from 7500 samples including microbial exts. and natural products. Kinetic anal. shows that it is a CMP-Neu5Ac competitive inhibitor with for ST3Gal I with an inhibition const. (Ki) of 2.1 .mu.M. In addn., it is only active against ST, but not against the other tested glycosyltransferases and glycosidases. Our study is the first report to discover ST inhibitor by screening method and also to provide the new chem. structure information that should be useful in the development of other novel ST inhibitors. (c) 2001 Academic Press.

REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 14 OF 24 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2001:367827 CAPLUS
DOCUMENT NUMBER: 135:71478
TITLE: Transgenic targeting of a dominant negative corepressor to liver blocks basal repression by thyroid hormone receptor and increases cell proliferation
AUTHOR(S): Feng, Xu; Jiang, Yuan; Meltzer, Paul; Yen, Paul M.
CORPORATE SOURCE: Molecular Regulation and Neuroendocrinology Section, Clinical Endocrinology Branch, NIDDK, NHGRI, National Institutes of Health, Bethesda, MD, 20892, USA
SOURCE: Journal of Biological Chemistry (2001), 276(18), 15066-15072
CODEN: JBCHA3; ISSN: 0021-9258
PUBLISHER: American Society for Biochemistry and Molecular Biology
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Unliganded thyroid hormone receptors (TRs) interact with corepressors and repress basal transcription of target genes in cotransfection and in vitro studies. Currently, little is known about the function of corepressors in vivo. The authors thus used a mouse albumin promoter to generate several transgenic mouse lines that overexpressed a dominant neg. mutant corepressor, NCoRi, in liver. The transgenic mice had normal liver wt., appearance, and minimal changes in enzyme activity. To study the effects of NCoRi on transcription of hepatic target genes, the authors examd. T3-regulated gene expression of hypo- and hyperthyroid transgenic mice. In hypothyroid mice, hepatic expression of Spot 14, Bcl-3, glucose 6-phosphatase, and 5'-deiodinase mRNA was higher in transgenic mice than littermate controls, whereas these genes were induced to similar levels in T3-treated mice. Derepression was not obsd. for malic enzyme mRNA expression in hypothyroid mice. Thus, NCoRi selectively blocked basal transcription of several thyroid hormone-responsive genes but had no effect on ligand-mediated transcription. Addnl., compensatory increases in endogenous SMRT and NCoR mRNA were obsd. in hypothyroid transgenic mice. Interestingly, hepatocyte proliferation as detected by BrdUrd incorporation was increased in transgenic mice. The gene profile in transgenic mouse livers was studied by cDNA microarray, and several genes related to cell proliferation were induced. In summary, the authors' studies show that NCoR plays important roles in mediating basal repression by TRs and may prevent cellular proliferation in vivo.
REFERENCE COUNT: 60 THERE ARE 60 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 15 OF 24 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2001:219359 CAPLUS
DOCUMENT NUMBER: 135:284568
TITLE: The biology and the biochemistry of the sialyl-.alpha.2,6-lactosaminyl-linkage
AUTHOR(S): Dall'Olio, Fabio
CORPORATE SOURCE: Dipartimento di Patologia Sperimentale dell'Universita di Bologna, Bologna, Italy
SOURCE: Current Topics in Biochemical Research (2000), 2, 63-75
CODEN: CTBRFE
PUBLISHER: Research Trends
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
AB A review with 201 refs. Glycosylation represents one of the most frequent post translational modifications of proteins. The cell surface oligosaccharide structures mediate many cellular interactions and undergo profound modifications during cell differentiation and neoplastic

transformation. Sialic acid is a neg. charged sugar which often terminates the oligosaccharide chains, usually linked .alpha.2,3- or .alpha.2,6-to galactose or .alpha.2,6 to N-acetylgalactosamine. This review summarizes the current knowledge on the biol. of the oligosaccharide epitope formed by sialic acid .alpha.2,6-linked to lactosaminic structures and the biochem. of the cognate sialyltransferase: .beta.-galactoside .alpha.2,6-sialyltransferase (ST6Gal.I). The expression of this enzyme is regulated by multiple transcriptional and post-transcriptional regulatory mechanisms which allow its tissue- and stage-specific modulation. The sialyl-.alpha.2,6-lactosaminyl-linkage is oncodevelopmentally regulated in several tissues and probably plays a role in colon **cancer** progression. .alpha.2,6-Sialylated lactosamic structures form the B cell-specific antigen CDw75 and are the ligand of the mammalian lectin CD22. In mice, the expression of the sialyl-.alpha.2,6-lactosaminyl-linkage is required for a proper development of the immune system.

REFERENCE COUNT: 201 THERE ARE 201 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 16 OF 24 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 2000:878426 CAPLUS

DOCUMENT NUMBER: 134:191523

TITLE: The transcriptional responses of respiratory epithelial cells to Bordetella pertussis reveal host defensive and pathogen counter-defensive strategies

AUTHOR(S): Belcher, Christopher E.; Drenkow, Jorg; Kehoe, Bettina; Gingeras, Thomas R.; McNamara, Nancy; Lemjabbar, Hassan; Basbaum, Carol; Relman, David A.

CORPORATE SOURCE: Departments of Pediatrics, Stanford University, Stanford, CA, 94305, USA

SOURCE: Proceedings of the National Academy of Sciences of the United States of America (2000), 97(25), 13847-13852 CODEN: PNASA6; ISSN: 0027-8424

PUBLISHER: National Academy of Sciences

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Bordetella pertussis, the causative agent of whooping cough, has many well-studied virulence factors and a characteristic clin. presentation. Despite this information, it is not clear how B. pertussis interaction with host cells leads to disease. In this study, we examd. the interaction of B. pertussis with a human bronchial epithelial cell line (BEAS-2B) and measured host transcriptional profiles by using high-d. DNA microarrays. The early transcriptional response to this pathogen is dominated by altered expression of cytokines, DNA-binding proteins, and NF.kappa.B-regulated genes. This previously unrecognized response to B. pertussis was modified in similar but nonidentical fashions by the antiinflammatory agents dexamethasone and sodium salicylate. Cytokine protein expression was confirmed, as was neutrophil chemoattraction. We show that B. pertussis induces mucin gene transcription by BEAS-2B cells then counters this defense by using mucin as a binding substrate. A set of genes is described for which the catalytic activity of pertussis toxin is both necessary and sufficient to regulate transcription. Host genomic transcriptional profiling, in combination with functional assays to evaluate subsequent biol. events, provides insight into the complex interaction of host and pathogen.

REFERENCE COUNT: 42 THERE ARE 42 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 17 OF 24 USPATFULL

ACCESSION NUMBER: 2003:3494 USPATFULL

TITLE: Vitro modification of glycosylation patterns of recombinant glycopeptides

INVENTOR(S): Bayer, Robert J., San Diego, CA, UNITED STATES

PATENT ASSIGNEE(S): Neose Technologies, Inc., Horsham, PA, UNITED STATES (U.S. corporation)

| | NUMBER | KIND | DATE |
|---|---|---|---|
| PATENT INFORMATION: | US 2003003529 | A1 | 20030102 |
| APPLICATION INFO.: | US 2002-198806 | A1 | 20020719 (10) |

RELATED APPLN. INFO.: Division of Ser. No. US 2001-855320, filed on 14 May 2001, PENDING

| | NUMBER | DATE |
|---|---|---|
| PRIORITY INFORMATION: | WO 2001-US15693 | 20010514 |
| | US 2000-203851P | 20000512 (60) |

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: TOWNSEND AND TOWNSEND AND CREW, LLP, TWO EMBARCADERO CENTER, EIGHTH FLOOR, SAN FRANCISCO, CA, 94111-3834
NUMBER OF CLAIMS: 55
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 5 Drawing Page(s)
LINE COUNT: 2076
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB This invention provides methods for modifying glycosylation patterns of glycopeptides, including recombinantly produced glycopeptides. Also provided are glycopeptide compositions in which the glycopeptides have a uniform glycosylation pattern.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 18 OF 24 USPATFULL
ACCESSION NUMBER: 2002:336876 USPATFULL
TITLE: Method of increasing anti-neuGc antibody levels in blood
INVENTOR(S): Zhu, Alex, New York, NY, UNITED STATES
Zhang, Shiming, Danville, PA, UNITED STATES
PATENT ASSIGNEE(S): Immucom Inc. (U.S. corporation)

| | NUMBER | KIND | DATE |
|---|---|---|---|
| PATENT INFORMATION: | US 2002192231 | A1 | 20021219 |
| APPLICATION INFO.: | US 2002-154046 | A1 | 20020523 (10) |

| | NUMBER | DATE |
|---|---|---|
| PRIORITY INFORMATION: | US 2001-293244P | 20010524 (60) |
| | US 2001-297692P | 20010612 (60) |

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: COHEN, PONTANI, LIEBERMAN & PAVANE, Suite 1210, 551 Fifth Avenue, New York, NY, 10176
NUMBER OF CLAIMS: 26
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 7 Drawing Page(s)
LINE COUNT: 914
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention provides for a method of increasing anti-NeuGc antibody level in the blood of an animal by either intravenous injection of autogenic or allogeneic cells, wherein the cells contain NeuGc on their plasma membrane, or oral administration of NeuGc-containing substance from animal tissues. This method may be applied to the immunoprevention of humans who have a higher risk of developing **cancer** or the prevention of recurrence in **cancer** patients who have had therapeutic treatment. This method may further be

applied to the immunoprevention of chickens at risk of developing Marek's Disease.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 19 OF 24 USPATFULL
ACCESSION NUMBER: 2002:251189 USPATFULL
TITLE: Methods for producing modified glycoproteins
INVENTOR(S): Gerngross, Tillman U., Hanover, NH, UNITED STATES

| | NUMBER | KIND | DATE | |
|---|---|---|---|---|
| PATENT INFORMATION: | US 2002137134 | A1 | 20020926 | |
| APPLICATION INFO.: | US 2001-892591 | A1 | 20010627 | (9) |

| | NUMBER | DATE | |
|---|---|---|---|
| PRIORITY INFORMATION: | US 2000-214358P | 20000628 | (60) |
| | US 2000-215638P | 20000630 | (60) |
| | US 2001-279997P | 20010330 | (60) |

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: Patrea L. Pabst, Holland & Knight LLP, 2000 One Atlantic Center, 1201 West Peachtree Street, Atlanta, GA, 30309-3400
NUMBER OF CLAIMS: 34
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 2 Drawing Page(s)
LINE COUNT: 1653
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Cell lines having genetically modified glycosylation pathways that allow them to carry out a sequence of enzymatic reactions, which mimic the processing of glycoproteins in humans, have been developed. Recombinant proteins expressed in these engineered hosts yield glycoproteins more similar, if not substantially identical, to their human counterparts. Thelower eukaryotes, which ordinarily produce high-mannose containing N-glycans, including unicellular and multicellular fungi are modified to produce N-glycans such as Man.sub.5GlcNAc.sub.2 or other structures along human glycosylation pathways. This is achieved using a combination of engineering and/or selection of strains which: do not express certain enzymes which create the undesirable complex structures characteristic of the fungal glycoproteins, which express exogenous enzymes selected either to have optimal activity under the conditions present in the fungi where activity is desired, or which are targeted to an organelle where optimal activity is achieved, and combinations thereof wherein the genetically engineered eukaryote expresses multiple exogenous enzymes required to produce "human-like" glycoproteins.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 20 OF 24 USPATFULL
ACCESSION NUMBER: 2002:214235 USPATFULL
TITLE: Saponin derivatives useful for inhibiting sialyltransferase and biosynthesis of sialoglycoconjugate
INVENTOR(S): Wu, Chi-Yue, Taipei, TAIWAN, PROVINCE OF CHINA
Chen, Shui-Tein, Taipei, TAIWAN, PROVINCE OF CHINA
Tsai, Ying-Chieh, Taipei, TAIWAN, PROVINCE OF CHINA
PATENT ASSIGNEE(S): Shui-Tein Chen (non-U.S. corporation)

| | NUMBER | KIND | DATE | |
|---|---|---|---|---|
| PATENT INFORMATION: | US 2002115623 | A1 | 20020822 | |
| APPLICATION INFO.: | US 2001-23604 | A1 | 20011217 | (10) |

| | NUMBER | DATE |
|---|---|---|
| PRIORITY INFORMATION: | US 2000-256853P | 20001219 (60) |

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: Paul D. Greeley, Esq., Ohlandt, Greeley, Ruggiero & Perle, L.L.P., 10th Floor, One Landmark Square, Stamford, CT, 06901-2682
NUMBER OF CLAIMS: 13
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 3 Drawing Page(s)
LINE COUNT: 489
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention provides the use of the saponin derivatives, which is of the general formula (I) or the pharmaceutically acceptable salts and esters thereof: ##STR1##

R.sub.1 is hydrogen, C.sub.1-8 alkyl, C.sub.2-6 alkenyl, C.sub.2-6 alkynyl, or C.sub.1-8 alkylhydroxy;

R.sub.2 is hydrogen, C.sub.1-8 alkyl, C.sub.2-6 alkenyl, C.sub.2-6 alkynyl, COOH, COOC.sub.1-8alkyl;

R.sub.3 is C.sub.1-8 alkylhydroxy, hydrogen, C.sub.1-8 alkyl, C2-6 alkenyl or C.sub.2-6 alkynyl;

R.sub.4 is a sugar residue; and

m is 0, 1, 2 or 3;

and pharmaceutically acceptable carriers, as well as the use of such pharmaceutical composition in the inhibition of sialyltransferases.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 21 OF 24 USPATFULL
ACCESSION NUMBER: 2002:206795 USPATFULL
TITLE: Inhibitors of glycosyltransferase enzymes
INVENTOR(S): Horenstein, Benjamin A., Gainesville, FL, UNITED STATES
Sun, Hongbin, Gainesville, FL, UNITED STATES

| | NUMBER | KIND | DATE | |
|---|---|---|---|---|
| PATENT INFORMATION: | US 2002111496 | A1 | 20020815 | |
| APPLICATION INFO.: | US 2002-67495 | A1 | 20020204 | (10) |

| | NUMBER | DATE |
|---|---|---|
| PRIORITY INFORMATION: | US 2001-266128P | 20010202 (60) |

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: SALIWANCHIK LLOYD & SALIWANCHIK, A PROFESSIONAL ASSOCIATION, 2421 N.W. 41ST STREET, SUITE A-1, GAINESVILLE, FL, 326066669
NUMBER OF CLAIMS: 20
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 4 Drawing Page(s)
LINE COUNT: 511
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The subject invention provides compounds and methods of producing compounds, which are useful inhibitors of glycosyltransferase enzymes. These compounds represent a new class of glycosyltransferase inhibitors and are potent inhibitors of sialyltransferase. The subject invention

also provides methods of treating diseases or conditions associated with glycosytransferases. Methods of modulating the activity of glycosytransferases are also provided.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 22 OF 24 USPATFULL
ACCESSION NUMBER: 2002:171875 USPATFULL
TITLE: Gene markers useful for detecting skin damage in response to ultraviolet radiation
INVENTOR(S): Blumenberg, Miroslav, New York, NY, UNITED STATES

| | NUMBER | KIND | DATE |
|---|---|---|---|
| PATENT INFORMATION: | US 2002090624 | A1 | 20020711 |
| APPLICATION INFO.: | US 2001-947870 | A1 | 20010906 (9) |

| | NUMBER | DATE |
|---|---|---|
| PRIORITY INFORMATION: | US 2000-231454P | 20000908 (60) |

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: HALE AND DORR, LLP, 60 STATE STREET, BOSTON, MA, 02109
NUMBER OF CLAIMS: 97
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 6 Drawing Page(s)
LINE COUNT: 10110
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The cellular response to ultraviolet radiation exposure has been characterized on the molecular level through the use of high density gene array technology. Nucleic acid molecules and protein molecules, the expression of which are repressed or induced in response to ultraviolet radiation exposure, are identified according to a temporal pattern of altered expression post ultraviolet radiation exposure. Methods are disclosed that utilized these ultraviolet radiation-regulated molecules as markers for ultraviolet radiation exposure. Other screening methods of the invention are designed for the identification of compounds that modulate the response of a cell to ultraviolet radiation exposure. The invention also provides compositions useful for drug screening or pharmaceutical purposes.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 23 OF 24 USPATFULL
ACCESSION NUMBER: 2002:32520 USPATFULL
TITLE: In vitro modification of glycosylation patterns of recombinant glycopeptides
INVENTOR(S): Bayer, Robert, San Diego, CA, UNITED STATES

| | NUMBER | KIND | DATE |
|---|---|---|---|
| PATENT INFORMATION: | US 2002019342 | A1 | 20020214 |
| APPLICATION INFO.: | US 2001-855320 | A1 | 20010514 (9) |

| | NUMBER | DATE |
|---|---|---|
| PRIORITY INFORMATION: | US 2000-203851P | 20000512 (60) |

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: TOWNSEND AND TOWNSEND AND CREW, TWO EMBARCADERO CENTER, EIGHTH FLOOR, SAN FRANCISCO, CA, 94111-3834
NUMBER OF CLAIMS: 55
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 5 Drawing Page(s)

LINE COUNT: 2069
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB This invention provides methods for modifying glycosylation patterns of glycopeptides, including recombinantly produced glycopeptides. Also provided are glycopeptide compositions in which the glycopeptides have a uniform glycosylation pattern.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L4 ANSWER 24 OF 24 USPATFULL
ACCESSION NUMBER: 2001:18240 USPATFULL
TITLE: Complement-resistant non-mammalian DNA viruses and uses thereof
INVENTOR(S): Boyce, Frederick M., Belmont, MA, United States
Barsoum, James G., Lexington, MA, United States
PATENT ASSIGNEE(S): The General Hospital Corporation, Boston, MA, United States (U.S. corporation)
Biogen, Inc., Cambridge, MA, United States (U.S. corporation)

| | NUMBER | KIND | DATE |
|---|---|---|---|
| PATENT INFORMATION: | US 6183993 | B1 | 20010206 |
| APPLICATION INFO.: | US 1999-329368 | | 19990610 (9) |

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1997-927317, filed on 11 Sep 1997
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Park, Hankyel
LEGAL REPRESENTATIVE: Sterne, Kessler, Goldstein & Fox PLLC
NUMBER OF CLAIMS: 45
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 40 Drawing Figure(s); 33 Drawing Page(s)
LINE COUNT: 3502
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Disclosed are methods, nucleic acids, and cells for expressing an exogenous gene in a mammalian cell, involving (i) introducing into the cell a complement-resistant non-mammalian DNA virus (e.g., a baculovirus), optionally having an altered coat protein, the genome of which virus carries an exogenous gene, and (ii) growing the cell under conditions such that the gene is expressed.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

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     FILE 'REGISTRY' ENTERED AT 13:05:22 ON 04 FEB 2003
L1                STRUCTURE UPLOADED
L2              3 S L1 SSS SAM
L3             41 S L1 SSS FULL

     FILE 'CAPLUS' ENTERED AT 13:07:59 ON 04 FEB 2003
L4            238 S L3
L5            337 S L4 OR SOYASAPONIN OR KAIKASAPONIN
L6              0 S L5 AND SIALYTRANSFERASE
L7              0 S SIALTRANSFERASE
L8             95 S SIALYTRANSFERASE
L9              0 S L8 AND L5
L10            17 S L5 AND (INFLAMMATION OR ALLERGY OR ONCOGENESIS OR CANCER OR M
                  S L1 AND CANCER OR METASTASIS

     FILE 'REGISTRY' ENTERED AT 13:13:21 ON 04 FEB 2003
L11             3 S L1

     FILE 'CAPLUS' ENTERED AT 13:13:24 ON 04 FEB 2003
L12            10 S L11
L13         30880 S L12 AND CANCER OR METASTASIS
                  S L1 AND CANCER OR METASTASIS

     FILE 'REGISTRY' ENTERED AT 13:13:38 ON 04 FEB 2003
L14             3 S L1

     FILE 'CAPLUS' ENTERED AT 13:13:39 ON 04 FEB 2003
L15            10 S L14
L16         30880 S L15 AND CANCER OR METASTASIS

     FILE 'CAPLUS' ENTERED AT 13:13:47 ON 04 FEB 2003
L17            11 S L10 AND (CANCER OR METASTASIS)
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L17 ANSWER 1 OF 11 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2002:638278 CAPLUS
DOCUMENT NUMBER: 137:163842
TITLE: Saponin derivatives useful for inhibiting sialyltransferase and biosynthesis of sialoglycoconjugate
INVENTOR(S): Wu, Chi-yue; Chen, Shui-tein; Tsai, Ying-chieh
PATENT ASSIGNEE(S): Shui-Tein Chen, Taiwan
SOURCE: U.S. Pat. Appl. Publ., 11 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| US 2002115623 | A1 | 20020822 | US 2001-23604 | 20011217 |

PRIORITY APPLN. INFO.: US 2000-256853P P 20001219
OTHER SOURCE(S): MARPAT 137:163842
AB A sialyltransferase inhibitor comprises a saponin deriv. selected from **soyasaponin** I, **soyasaponin** II, **soyasaponin** III, **kaikasaponin** III, **soyasaponin** V, and **soyasaponin** I-Me. The saponin deriv. can be used in the treatment of the disease assocd. with sialyltransferase, such as **inflammation**, **allergy**, infection by pathogens, **oncogenesis**, **cancer**, **metastasis** and invasion. For example, **soyasaponin** I inhibited the expression of cell surface 2,3-sialoglyconjugates of human breast **cancer** MCF7 cells; 100 .mu.M of **soyasaponin** I can decrease about 80% of the 2,3-sialoglyconjugates of MCF7 cells. Moreover, **soyasaponin** I inhibited the growth of human breast **cancer** MCF7 cells. In addn., **soyasaponin** I inhibited the expression of cell surface .alpha.2,6-sialoglyconjugates of human hepatoma HepG2 cells; 100 .mu.M of **soyasaponin** I decreased about 60% cell surface .alpha.2,6-sialoglyconjugates of HepG2 cells. Also, the **soyasaponin** I inhibited the growth of human hepatoma HepG2 cells.

L17 ANSWER 2 OF 11 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2001:411265 CAPLUS
DOCUMENT NUMBER: 135:220886
TITLE: **Soyasaponin** I, a Potent and Specific Sialyltransferase Inhibitor
AUTHOR(S): Wu, Chi-Yue; Hsu, Chi-Cheng; Chen, Shui-Tein; Tsai, Ying-Chieh
CORPORATE SOURCE: Institute of Biochemistry, School of Life Sciences, National Yang-Ming University, Taipei, Taiwan
SOURCE: Biochemical and Biophysical Research Communications (2001), 284(2), 466-469
CODEN: BBRCA9; ISSN: 0006-291X
PUBLISHER: Academic Press
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A growing no. of reports demonstrate that hypersialylation, which is obsd. in certain pathol. processes, such as oncogenic transformation, tumor **metastasis**, and invasion, is assocd. with enhanced sialyltransferase (ST) activity. There is therefore a need for the development of ST inhibitors to modulate ST activity and thus alleviate the disease processes caused by STs. In the present study, **soyasaponin** I had been discovered to be a potent and specific ST inhibitor by screening strategy from 7500 samples including microbial exts. and natural products. Kinetic anal. shows that it is a CMP-Neu5Ac competitive inhibitor with for ST3Gal I with an inhibition const. (Ki) of 2.1 .mu.M. In addn., it is only active against ST, but not against the

other tested glycosyltransferases and glycosidases. Our study is the first report to discover ST inhibitor by screening method and also to provide the new chem. structure information that should be useful in the development of other novel ST inhibitors. (c) 2001 Academic Press.
REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 3 OF 11 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2001:306969 CAPLUS
DOCUMENT NUMBER: 135:70850
TITLE: Studies on the anti-carcinogenic effects of soybean hypocotyls
AUTHOR(S): Sugimoto, Akiko; Yasuhara, Tadashi; Akizawa, Toshifumi; Watanabe, Shaw
CORPORATE SOURCE: Dep. Mol. Design, Div. Biofunct. Mol., Inst. Biomater. Bioeng., Tokyo Med. Dent. Univ., Tokyo, Japan
SOURCE: Seitai Zairyo Kogaku Kenkyusho Hokoku (Tokyo Ika Shika Daigaku) (2000), 34, 37-41
CODEN: SZKHF9
PUBLISHER: Tokyo Ika Shika Daigaku Seitai Zairyo Kogaku Kenkyusho
DOCUMENT TYPE: Journal
LANGUAGE: Japanese
AB Soybean is known to show inhibitory activity against the propagation of tumor cells. The inhibitory activity is considered to be at least in part due to the phytoestrogenic effects of isoflavones such as daidzein and genistein in soybeans. However, the actual mechanism of the anti-carcinogenic effects of soybean has not been clear until now. Matrix metalloproteinases (MMPs), which are membrane-bound zinc endopeptidases, are thought to be involved in angiogenesis and invasion of tumor cells into blood vessels and tissues, essential processes for tumor **metastasis**. Therefore, inhibition of MMPs has attracted interest as a therapeutic strategy, and inhibitory substances active against MMPs are being sought in natural resources. To find a novel substance having MMP inhibitory activities in soybeans, we tested crude exts. of soybean hypocotyls using the five MMPs and their substrates. The results indicated 2 fractions active out of 15 HPLC fractions. From the 2 fractions, we isolated and purified 2 compds. Their chem. structures were detd. by FA-MS, 1H-, 13C-NMR, UV, and some chem. reactions. They are **soyasaponin** .alpha.g and **soyasaponin** .beta.g, two of five known DDMP-saponins.

L17 ANSWER 4 OF 11 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2001:103906 CAPLUS
DOCUMENT NUMBER: 135:282426
TITLE: Anti-tumor-promoting activities (**cancer** chemopreventive activities) of natural products
AUTHOR(S): Konoshima, Takao; Takasaki, Midori
CORPORATE SOURCE: Kyoto Pharmaceutical University, Kyoto, 607-8414, Japan
SOURCE: Studies in Natural Products Chemistry (2000), 24(Bioactive Natural Products (Part E)), 215-267
CODEN: SNPCE2
PUBLISHER: Elsevier Science B.V.
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
AB A review with 66 refs. To search for possible anti-tumor-promoters ( **cancer** chemopreventive agents) from natural resource, more than one-hundred and fifty natural products (flavonoids, lignans, euglobals, triterpenoids, saponins and cardiac steroids etc.) were examd. by primary screening test using in vitro synergistic assay on Epstein-Barr virus early antigen (EBA-EA) activation. Several compds. which exhibited the inhibitory effect on EBV-EA activation were further assayed by in vivo two-stage carcinogenesis test (mouse skin, pulmonary and liver carcinogenesis). Of many arom. compds., afromosin, pendulone,

amorphispironone, tephrosin, asarinin, xanthoxylol, euglobal-G1, and euglobal-III exhibited significant anti-tumor-promoting activities on mouse skin and pulmonary carcinogenesis. Further, many novel triterpenoids and their glycosides were isolated from Leguminous and Cucurbitaceous plants, and gleditsiasaponin C, gymicladussaponin G, 23, 24-dihydrocucurbitacin F, and cayaponoside B also exhibited strong inhibitory effects on two-stage carcinogenesis test. Of cardiac glycosides, digitoxin exhibited the most remarkable effects on mouse skin and pulmonary carcinogenesis. Furthermore, the combined effects of plural constituents and plant exts. on **cancer** chemoprevention were also examd., and the combination of afromosin with **soyasaponin** I enhanced the each anti-tumor-promoting activity. Consequently, many active compds. were found out and these compds. might be valuable chemopreventive agents.

REFERENCE COUNT: 66 THERE ARE 66 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 5 OF 11 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2001:16707 CAPLUS
DOCUMENT NUMBER: 135:4952
TITLE: Study on **cancer** preventive substances in soybeans
AUTHOR(S): Nishino, Hoyoku
CORPORATE SOURCE: Kyoto Prefectural University of Medicine, Kyoto, Kamigyo-ku, Kawaramachi, Hirokoji, Agaru, 502-8566, Japan
SOURCE: Daizu Tanpakushitsu Kenkyu (2000), 3, 59-62
CODEN: DTKEFV; ISSN: 1344-4050
PUBLISHER: Fuji Tanpakushitsu Kenkyu Shinko Zaidan
DOCUMENT TYPE: Journal
LANGUAGE: Japanese

AB In the previous study, the authors showed that genistein, one of the isoflavonoids found in soybean, inhibited the proliferation of prostate **cancer** DU145 cells. In addn. to prostate **cancer** cells, various tumor cell lines the authors also proven to be sensitive to genistein. In the present study, it is confirmed that genistein has anti-proliferative activity on human tumor cells, including gastric **cancer** cell line and lung **cancer** cell lines. Thus, genistein seems to be useful for the **cancer** control in a wide range spectrum. Further anal. of action mechanism of genistein is important before starting new clin. intervention trials, because of the development of novel methods, such as DNA array technol. and proteomics technol., has recently been achieved. In this context, the authors evaluated the potency of genistein on expression of wide variety of genes using DNA macroarray and found that the treatment of DU145 cells with genistein resulted in early induction of cell cycle related genes, such as p53, p53-dependent cell growth regulator CGR19, MDM2-like p53-binding protein, RBQ-3 and so on. The authors are now extending this kind of study by means of DNA microarray. And introduction of proteomics is now in planning. Since various substances co-exist with isoflavonoids in soybean, studies on these soybean constituents seem to be also valuable. Thus, the authors have started to assess biol. activities of these substances, including **soyasaponins**, tocotrienol, and phytic acid. In the present study, we confirmed anti-tumor promoter activity of **soyasaponin** I and II.

L17 ANSWER 6 OF 11 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1999:191259 CAPLUS
DOCUMENT NUMBER: 131:27300
TITLE: Review of studies on biological activities of **soyasaponins**
AUTHOR(S): Qian, Zhong-Zhi; Dai, Xin-Yu; Ma, Xing-Sheng
CORPORATE SOURCE: Drug Control of Heilongjiang Province, Harbin, Peop. Rep. China

SOURCE: Studies in Plant Science (1999), 6(Advances in Plant Glycosides, Chemistry and Biology), 193-195
CODEN: SPLCEU; ISSN: 0928-3420
PUBLISHER: Elsevier Science B.V.
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
AB A review with 15 refs. This review is about the studies on biol. activities of **soyasaponins** (ss). These studies show that ss have extensive biol. activities and pharmacol. values. Thus, ss may become new drug resources for treating angiocardiopathy and inhibiting **cancer**.
REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 7 OF 11 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1999:130620 CAPLUS
DOCUMENT NUMBER: 130:187166
TITLE: Special soy extract containing isoflavone glycosides and saponins
INVENTOR(S): Bombardelli, Ezio; Gabetta, Bruno
PATENT ASSIGNEE(S): Indena S.p.A., Italy
SOURCE: Ger. Offen., 8 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| DE 19732855 | A1 | 19990218 | DE 1997-19732855 | 19970730 |
| DE 19732855 | C2 | 19991111 | | |
| JP 2001511455 | T2 | 20010814 | JP 2000-504870 | 19980730 |
| RU 2183964 | C2 | 20020627 | RU 2000-2000105259 | 19980730 |
| CN 1089245 | B | 20020821 | CN 1998-807664 | 19980730 |
| JP 2003002838 | A2 | 20030108 | JP 2002-120590 | 19980730 |
| US 6280777 | B1 | 20010828 | US 2000-492921 | 20000128 |
| US 2002058062 | A1 | 20020516 | US 2001-902226 | 20010711 |

PRIORITY APPLN. INFO.:
DE 1997-19732822 A 19970730
DE 1997-19732855 A 19970730
DE 1997-19732866 A 19970730
JP 2000-504870 A3 19980730
WO 1998-EP4770 W 19980730
US 2000-492921 A3 20000128

AB Alc. soybean exts. contain isoflavone glycosides and group B saponins which are more effective, when administered in a wt. ratio of 1:(0.6-1.5), in treatment of **cancer** than the isolated isoflavones obtained from soybeans. Thus, defatted soybean meal, contg. 0.2% isoflavone glucosides and 0.3% group B saponins, was extd. with refluxing EtOH; the ext. was concd., dild. with H2O, extd. with n-hexane, and the remaining alc. phase was extd. with BuOH. The BuOH phase, after evapn. to dryness and dissoln. in hot EtOH/EtOAc/H2O, was cooled to ppt. saponins in 93% purity; isoflavones were obtained from the filtrate in 81% purity and combined with the saponins in a 1:1 wt. ratio. This ext. showed synergistic antiproliferative activity against an ovarian tumor cell line (OVCA 433), with an IC50 of 1.1 .mu.M. Tablets were prepd. contg. this soy ext. 400.0, soybean polysaccharides 155.5, microcryst. cellulose 57.0, hydroxypropylmethylcellulose 12.0, hydrogenated vegetable oil 19.5, colloidal SiO2 3.0, and Mg stearate 3.0 mg.

L17 ANSWER 8 OF 11 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1996:435406 CAPLUS
DOCUMENT NUMBER: 125:150873
TITLE: Bioactive compounds from leguminous plants -

structures, activities, HPLC profiles and functional importance of sugar moiety for oleanane glucuronides

AUTHOR(S): Kinjo, Junei

CORPORATE SOURCE: Fac. Pharmaceutical Sciences, Kumamoto Univ., Kumamoto, 862, Japan

SOURCE: Natural Medicines (1996), 50(2), 79-85
CODEN: NMEDEO; ISSN: 1340-3443

PUBLISHER: Japanese Society of Pharmacognosy

DOCUMENT TYPE: Journal

LANGUAGE: Japanese

AB Crude saponin fractions of Puerariae Flos (flowers of Pueraria lobata) and Abri Herba (whole plants of Abrus cantoniensis) are found to be effective for exptl. induced liver injury. Chem. anal. of these fractions gave saponins (oleanane glucuronides) characteristic of the family Leguminosae, which have a Me group at C-17 and glucuronic acid moiety at C-3 of sapogenols, which are common to the soybean saponins. By further discovery of the saponins in leguminous plants, more than 130 saponins including 67 new ones and 19 novel sapogenols are isolated from 18 plants. Their effects on hepatic injury were assayed by using primary cultured rat hepatocytes. **Kaikasaponin** III, isolated from Abri Herba, was found to be more effective than glycyrrhizin and **soyasaponin** I which have been known to be effective on hepatic injuries. To study the relation between the activity and the structures of the sugar moiety, we synthesized novel saponins having an oligo-saccharide chain at C-28 carboxy group of oleanolic acid-type saponins. Now their activities towards hepatic injury, microorganisms and **cancer** cells are being evaluated.

L17 ANSWER 9 OF 11 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1995:918999 CAPLUS

TITLE: Anti-tumor-promoting activities of triterpenoid glycosides - **cancer** chemoprevention by saponins.

AUTHOR(S): Konoshima, T.

CORPORATE SOURCE: Kyoto Pharmaceutical University, Kyoto, 607, Japan

SOURCE: Book of Abstracts, 210th ACS National Meeting, Chicago, IL, August 20-24 (1995), Issue Pt. 1, AGFD-003. American Chemical Society: Washington, D. C.
CODEN: 61XGAC

DOCUMENT TYPE: Conference; Meeting Abstract

LANGUAGE: English

AB Recentry, many natural products having anti-tumor-promoting activities have been isolated from many medicinal plants. As a continuation of our biol. studies on the potential anti-tumor-promoting activities ( **cancer** chemopreventive agents) of natural products, we have carried out a primary screening test of many Japanese and Chinese folk medicines using their inhibitory effects on Epstein-Barr virus early antigen (EBV-EA) activation induced by TPA. Of these compds., several triterpenoids exhibied strong inhibitory effects on EBV-EA activation and on two-stage carcinogenesis of mouse skin tumor. In this paper, the **cancer** chemopreventive activities of these triterpenoid glycosides (**soyasaponin** I from Wistaria brachybotrys, gleditsia saponin C from Gleditsia japonica, ginsenoside Rgl from Panax notoginseng etc.) will be presented and discussed.

L17 ANSWER 10 OF 11 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1995:436545 CAPLUS

DOCUMENT NUMBER: 122:180841

TITLE: Modifying effects of naturally occurring products on the development of clonic aberrant crypt foci induced by azoxymethane in F344 rats

AUTHOR(S): Kawamori, Toshihiko; Tanaka, Takuji; Hara, Akira; Yamahara, johji; Mori, Hideki

CORPORATE SOURCE: First Dep. Pathology, Gift Univ. Sch. Med., Cifu City, 500, Japan
SOURCE: Cancer Research (1995), 55(6), 1277-82
CODEN: CNREA8; ISSN: 0008-5472
PUBLISHER: American Association for Cancer Research
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Modifying effects of dietary exposure of seven naturally occurring products on the development of colonic aberrant crypt foci (ACF) induced by azoxymethane (AOM) were investigated in male F344 rats. The effects of these compds. on proliferation biomarkers such as the no. of silver-stained nucleolar organizer region protein, ornithine decarboxylase activity, and polyamine concn. in the colon were also estd. The naturally occurring products tested included four terpenoids (rebaudioside A, oleanolic acid, costunolide, and **soyasaponin** A2), one flavonoid (liquiritin), and two isocoumarins (phyllodulcin and hydrangenol). Animals were given 3 weekly s.c. injections of AOM (15 mg/kg body wt.) to induce ACF. These rats were fed the diet contg. 200 ppm of each test chem. for 5 wk, starting 1 wk before the first dosing of AOM. All rats were sacrificed 2 wk after the last AOM injection to est. their modulatory effects on the occurrence of ACF and the cell proliferation biomarkers in the colon. In groups of rats given AOM and hydrangenol, oleanolic acid, or costunolide, the frequencies of ACF/colon were significantly lower than that of AOM alone. In groups of rats given AOM and costunolide and those treated with AOM and **soyasaponin** A2, both ornithine decarboxylase activity and polyamine concn. of the colonic mucosal tissue were significantly decreased compared with those in rats given AOM alone. In groups of rats given AOM and liquiritin, oleanolic acid, or costunolide, the nos. of silver-stained nucleolar organizer regions/nucleus were significantly lower than that of AOM alone. Costunolide decreased four AOM-induced biomarkers, such as the frequencies of ACF/colon, ornithine decarboxylase activity, polyamine concn. level, and silver-stained nucleolar organizer region no. in the colon. These results indicate that, among the test chems., costunolide has blocking effects against rat colon carcinogenesis and is a possible chemopreventive agent against colon tumorigenesis. Also, the short-term model described here could be a very useful prescreening tool for chemopreventive agents against colon **cancer**.

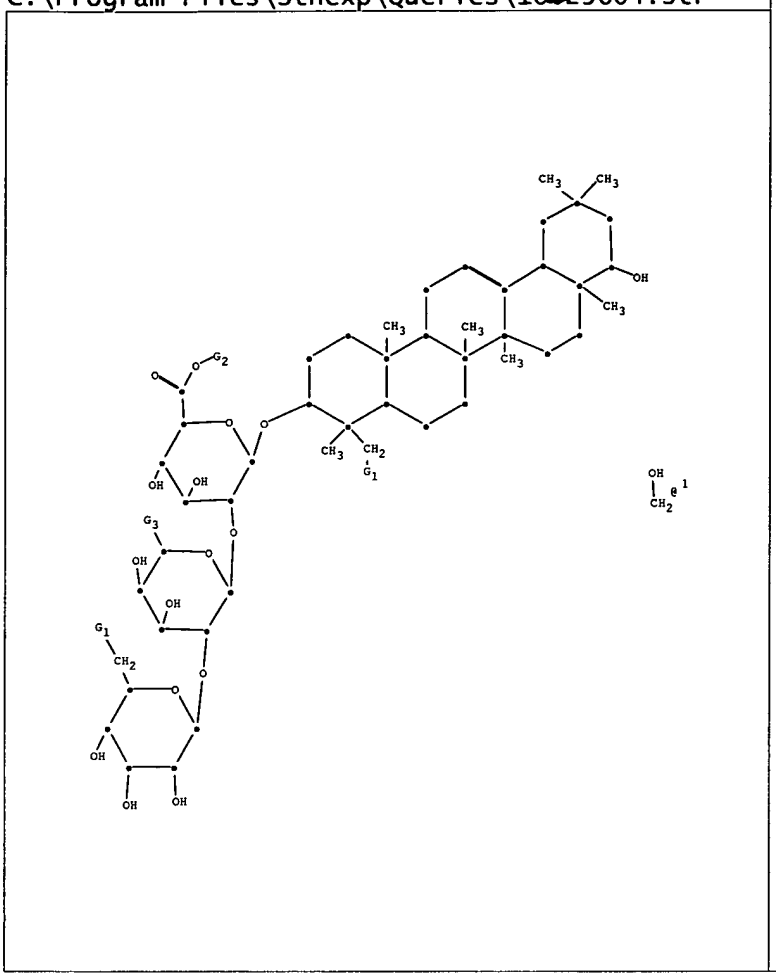
L17 ANSWER 11 OF 11 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1990:624564 CAPLUS
DOCUMENT NUMBER: 113:224564
TITLE: Viral genome inhibitors as therapeutic agents
INVENTOR(S): Kijima, Takao; Tokuda, Harukuni; Kozuka, Mutsuo; Tanabe, Masahiro
PATENT ASSIGNEE(S): Nagakura Pharmaceutical Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

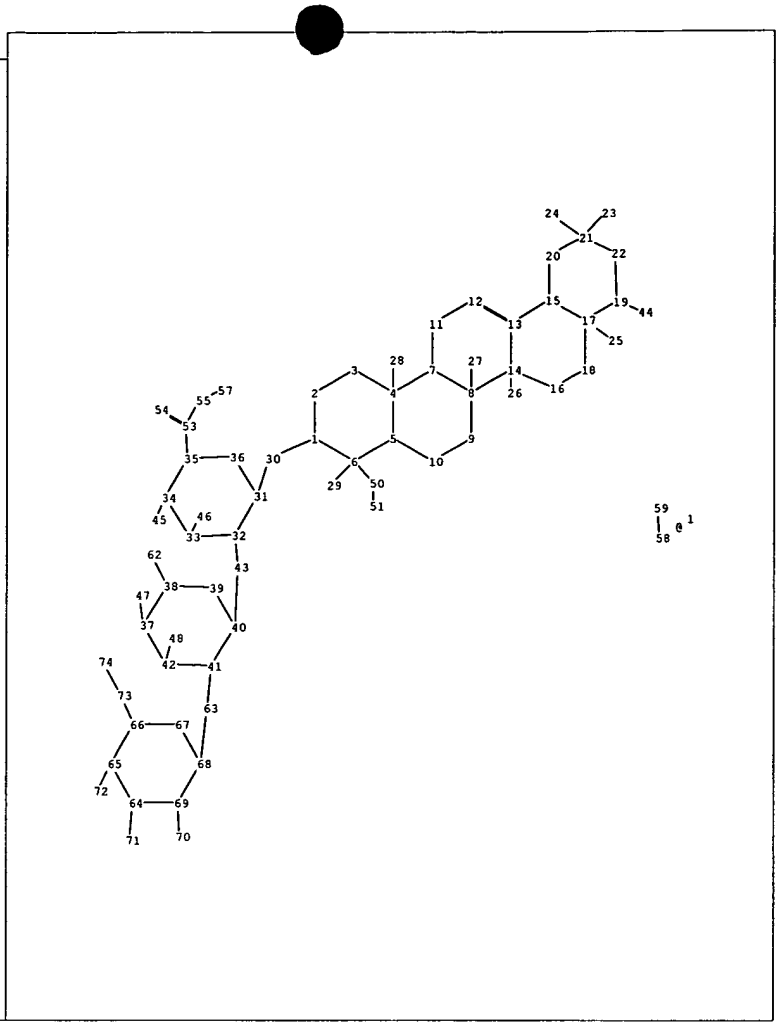
| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| JP 02067218 | A2 | 19900307 | JP 1988-217427 | 19880831 |

PRIORITY APPLN. INFO.: JP 1988-217427 19880831

AB A viral genome inhibitor contains .gtoreq.1 compd. selected from afromosin, formononetin, ononin, wistin, soyasapogenol B, **soyasaponin** I, 7-O-acetylformononetin, and 7-O=acetylafromosin. The inhibitor is effective in controlling **cancer** and viral infections. The inhibitory activities of these agents against genome expression of Epstein-Barr virus were shown in vitro.

C:\Program Files\Stnexp\Queries\1[redacted]3604.str





chain nodes :
23 24 25 26 27 28 29 30 43 44 45 46 47 48 50 51 53 54 55 57 58 59
62 63 70 71 72 73 74
ring nodes :
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 31 32 33
34 35 36 37 38 39 40 41 42 64 65 66 67 68 69
chain bonds :
1-30 4-28 6-29 6-50 8-27 14-26 17-25 19-44 21-23 21-24 30-31 32-43 33-46
34-45 35-53 37-47 38-62 40-43 41-63 42-48 50-51 53-54 53-55 55-57 58-59 63-68
64-71 65-72 66-73 69-70 73-74
ring bonds :
1-2 1-6 2-3 3-4 4-5 4-7 5-6 5-10 7-8 7-11 8-9 8-14 9-10 11-12 12-13 13-14
13-15 14-16 15-17 15-20 16-18 17-18 17-19 19-22 20-21 21-22 31-32 31-36 32-33
33-34 34-35 35-36 37-38 37-42 38-39 39-40 40-41 41-42 64-65 64-69 65-66 66-67
67-68 68-69
exact/norm bonds :
1-2 1-6 1-30 2-3 3-4 4-5 4-7 5-6 5-10 7-8 7-11 8-9 8-14 9-10 11-12 12-13
13-14 13-15 14-16 15-17 15-20 16-18 17-18 17-19 19-22 19-44 20-21 21-22 30-31
31-32 31-36 32-33 32-43 33-34 33-46 34-35 34-45 35-36 37-38 37-42 37-47 38-39
38-62 39-40 40-41 40-43 41-42 41-63 42-48 50-51 53-54 53-55 55-57 63-68 64-65
64-69 64-71 65-66 65-72 66-67 67-68 68-69 69-70 73-74
exact bonds :
4-28 6-29 6-50 8-27 14-26 17-25 21-23 21-24 35-53 58-59 66-73

G1:H,OH

G2:H,CH3

G3:H,[*1]

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom
12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom 20:Atom 21:Atom
22:Atom

23:CLASS 24:CLASS 25:CLASS 26:CLASS 27:CLASS 28:CLASS 29:CLASS 30:CLASS
31:Atom 32:Atom 33:Atom 34:Atom 35:Atom 36:Atom 37:Atom 38:Atom 39:Atom 40:Atom
41:Atom 42:Atom 43:CLASS 44:CLASS 45:CLASS 46:CLASS 47:CLASS 48:CLASS 50:CLASS
51:CLASS 53:CLASS 54:CLASS 55:CLASS 57:CLASS 58:CLASS 59:CLASS 62:CLASS 63:CLASS
64:Atom 65:Atom 66:Atom 67:Atom 68:Atom 69:Atom 70:CLASS 71:CLASS 72:CLASS
73:CLASS 74:CLASS